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ABSTRACT

The information in this report is derived from responses to a questionnaire sent to contacts in the 50 states in winter 1988. The questionnaire, which uses the requirements of the Asbestos Hazard Emergency Response Act of 1986 (AHERA) as a base for comparing state programs, sought information regarding state programs dealing with asbestos in state-owned buildings. AHERA is the only federal law mandating uniform asbestos inspection in buildings, but it applies only to elementary and secondary school buildings. Survey data from the 28 states are summarized in a series of charts collating features of all state programs and in individual state profiles. In 25 of these states, building inspections were being required in at least some state-owned buildings, most often office buildings, hospitals, and prisons. Alaska, Florida, New Jersey, and Rhode Island reported that once asbestos is discovered, management plans must be developed and implemented as a matter of law, while six other states indicated similar planning as a matter of state or departmental policy. Notification of some kind was required in almost all responding states. Almost all states report that both removals and management-in-place are being selected as response actions and that abatement projects were being conducted in occupied buildings following stringent work practice standards. Most states use a combination of general funds and departmental budgets to finance asbestos activities. Three appendices summarize relevant laws and regulations, list states with delegated federal programs, and provide the survey respondents' state contact list. (MLH)

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Asbestos in State-Owned Buildings: A Survey of State Programs

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SUMMARY

The charts and summaries of state programs that follow are derived from responses to a questionnaire that was sent to contacts in the 50 states in the winter of 1988. The questionnaire sought information regarding state programs dealing with asbestos in state-owned buildings. The questionnaire uses the requirements of the Asbestos Hazard Emergency Response Act of 1986 (Public Law 99-519, AHERA) as a base for comparing state programs. AHERA is the only federal law that mandates uniform inspections in buildings for asbestos, but it applies only to elementary and secondary school buildings (see Appendix A for an explanation of AHERA). Some states have adopted parts of AHERA and applied them in some form to state-owned buildings.

The U.S. Environmental Protection Agency (EPA) has promulgated regulations implementing AHERA that include requirements for inspections, sampling requirements, management plans, response actions, and training and certification (accreditation) requirements. The questionnaire sought information about similar requirements or policies in state-owned buildings and sought information about other state issues such as funding and future activities. Other federal requirements dealing with asbestos also are used for purposes of state comparisons.

Twenty-eight states were able to respond to the questionnaire. The responses of these 28 states are summarized in two parts. The first part is a series of charts that collate features of all state programs. The second part profiles each state individually. Some states were contacted to clarify answers; however, this document is a survey and not the result of legal research. The report is intended to serve state policymakers in assessing and developing asbestos program options for state-owned buildings. The survey should not be used as a blueprint for compliance with state regulations.

SURVEY HIGHLIGHTS

Building Inspections

Twenty-five of the 28 states responded that building inspections were being conducted in at least some state-owned buildings. Of these 25, eight states were requiring inspections as a matter of law by statute and/or regulation. The remaining 17 were inspecting state-owned buildings as a matter of state or departmental policy.

State office buildings, hospitals, and prisons were the buildings most frequently subject to inspections. State-leased buildings and colleges and universities were a close second. States also reported inspections in additional buildings, including park and recreation facilities, warehouses, and armories.

Some states conducted a visual inspection of a sample of state buildings in 1984 in preparation for litigation. Most states currently are in the process of conducting inspections; however, some states have completed 100 percent of their inspections. For example, Connecticut, Delaware, Florida, and Vermont reported that all inspections are complete. Illinois has just begun a comprehensive inspection program and has chosen to target 24-hour facilities as its first priority.

Twelve of the reporting states indicated that specific inspection procedures and criteria were mandated. It appears the remaining states do not mandate procedures on a state-wide basis. Most of these states have individual departmental inspection protocol. All of the responding states except two reported that inspections cover both friable and nonfriable asbestos. These other two states covered only friable material.

Management Plans/Response Actions

Alaska, Florida, New Jersey, and Rhode Island responded that once asbestos is discovered, management plans must be developed and implemented as a matter of law. Six other states reported that management plans were being developed and implemented as a matter of state or departmental policy. These management plans generally require some form of notification and response action description with some requiring periodic surveillance, reinspections, and operations and maintenance.

Notification of some kind was reported in almost all the responding states. Some states did not outline the procedures, but others gave some details. In Alaska, all building occupants are notified. In Tennessee, all state employees are notified by an insert included with their paychecks. In Arkansas and California, building operators are notified. Massachusetts notifies all maintenance employees and instructs them not to disturb the asbestos. Question and answer meetings are held where appropriate.

Almost all states report that both removals and management-in-place are being selected as response actions. The information that follows includes the rationale of some states and other information regarding certain response actions.

Arkansas	Reported removal of friable asbestos-containing material (ACM) and ACM subject to demolition. Management occurs where no renovations are planned and the material is nonfriable.
California	Still is compiling data on condition and costs and is preparing a priority list.
Connecticut	Estimates abatement costs will exceed $106 million. The state currently recommends management but plans to have all removals completed over a 10-year period.
Delaware	Found 400 of the 1,168 buildings inspected contained ACM. Friable, damaged material was removed. Repair is the preferred management option and management is chosen where it is not practicable or feasible to remove. All abatement projects are subject to centralized state approval.

Florida	Makes a cost-benefit judgment in deciding whether to remove or manage.
Kentucky	Reported removals of friable ACM. The state policy is that no ACM may be disturbed without consultation with and approval of the state asbestos coordinator.
Massachusetts	Reported that management generally is chosen where there are no demolition plans and the material is inaccessible.
Michigan	Reported that the location of the material and its condition determine response actions.
Missouri	Is establishing a priority ranking list to use in response action determination.
Montana	Is in the process of completing a survey. Preliminary results indicate that 0-5 percent contain no ACM; 30-33 percent contain ACM but no action or deferred action is recommended; 20-25 percent require removal or some kind of abatement.
New Jersey	Uses the following considerations in determining the current response action: (1) is the air level above .01 fibers per cubic centimeter (f/cc) using transelectron microscopy (TEM); (2) what is the percent of damage; (3) what is the future and current use; (4) how accessible is the material; (5) is the material in the air plenum? Management generally occurs in situations of inaccessibility or where the damaged area is less than 15 percent (minor damage).
North Carolina	Estimates 80 percent of its buildings contain suspected ACM based on a visual walk-through.
Oklahoma	Reports all abatement projects are subject to centralized state approval.
Rhode Island	Reports all abatement projects are subject to centralized state approval. Removal generally is chosen where other alternatives exceed 60 percent of the cost of removal over a two-year period.

Abatement Projects

Twenty-seven of the reporting states indicated that abatement projects were being conducted in occupied buildings following stringent work practice standards. Twenty-three states used air monitoring as at least a supplemental means of assessing the material. All the responding states reported the use of air monitoring to "clear" a building in postabatement. Nine of these states used Phase Contrast Microscopy (PCM) technology. Six states reported the use of both PCM and Transmission Electron Microscopy (TEM). Four states reported use of only TEM. The remaining states did not describe the technology used. All the states that reported a numerical level reported .01 fibers per cubic centimeter (f/cc) as the standard for clearance.

California reported that some departments are conducting periodic air monitoring in buildings. Massachusetts reported using PCM on all jobs except glove bag operations. Georgia reported following the AHERA methods (TEM) for most jobs but using PCM for glove bag operations. Georgia also has an Agency for Removal of Hazardous Materials that performs some abatement projects in state-owned buildings. Twenty states use state employees for at least some projects, with seven reporting that state employees were not used on any projects.

All of the responding states use private contractors for at least some jobs. Most reported use of private contractors for large projects and state employees for smaller and emergency projects.

Accreditation

Twenty-five states require some kind of training/certification for supervisors, contractors and workers conducting work in state-owned buildings. Fifteen of the states require accreditation of consultants (inspectors, management planners, project designers) conducting work in state-owned buildings. Eleven states require a project monitor on abatement jobs. Eight states have policies for training custodial and maintenance personnel.

Delaware has a 14-hour operations and maintenance training course for state personnel. Louisiana has trained state supervisors that train their own state employees who conduct operations and maintenance activities. North Carolina offers a state course for maintenance and other state personnel. Rhode Island also uses a 14-hour operations and maintenance course. South Carolina uses worker training for custodial personnel.

Funding

Most states use a combination of general funds and departmental budgets to finance asbestos activities for state-owned buildings. Illinois, New Mexico, and North Carolina have established additional special asbestos funds. Six states--Connecticut, Delaware, Massachusetts, New Mexico, Rhode Island, South Carolina--have authorized bonds to finance asbestos activities. Most states were unable to report operating budgets, but were able to report capital budgets (see the following tables for figures).

Other Activities

In this section states were asked to predict future activities, but most states did not respond. Eight responding states anticipate changes in their programs in the future.

CHARTS FOR STATE PROGRAMS

The six charts that follow summarize state programs regarding asbestos in state-owned buildings as reported in responses to the survey. The charts cover eight program areas: building inspections, management programs, response actions, abatement projects, accreditation, training required, funding, and other activities. Subheadings within each chart correspond with questions in the survey.

I. BUILDING INSPECTIONS

STATE	STATE-OWNED BUILDINGS COVERED						INSPECTIONS REQUIRED BY			Mandate Procedures	Material Covered
	Office Buildings	Colleges/ Universities	State-Leased	Hospitals	Prisons	Other	Statute	Regulation	Policy		
AK	X					X			X	X	
AR	X	X	No	X	No	No			X	No	
CA	X	X		X	X	X			X	No	F/NF
CO	No	No	No	No	No	No	No	No	No	No	
CT	X	X		X	X	X			X	X	F/NF
DE	X	X	X	X	X	X			X	X	F/NF
FL	X	X		X	X	X	X			X	F/NF
GA	X	X		X	X				X	No	
IL	X			X	X	X	X			X	F/NF
IA	X			X	X				X		
KS	No	No	No	No	No	No	No	No	No	No	N/A
KY	X	X	X	X	X		X			No	F
LA	X	X	X	X	X	X			X	X	F/NF
MA	X	X	No	X	X	X	X			X	F/NF
MI	X			X	X	X			X		
MO	X		X	X	X	X	X	X		X	F/NF
MT	X	X		X	X	X			X	No	
NJ	X	X	X	X	X	X	X	X	X	X	F/NF
NM	X	X		X	X				X	No	
NY		X							X	No	
NC	X	X	X	X	X				X	No	
ND	X				X				X	No	
OK	X	X		X	X	X			X	X	F
RI	X	X		X	X	X	X	X		X	F/NF
SC	X	X		X	X	X			X	No	F/NF
TN	X	X		X	X	X			X	X	F/NF
VT	X	X	X	X	X	X	X			No	F/NF
WI	X	X	X	X	X		No	No	No	No	

Abbreviation Key

X	Affirmative Answer
No	Negative Answer
F	Friable
NF	Nonfriable

Where a space is blank, the state did not respond or information was not available.

CHARTS FOR STATE PROGRAMS

The six charts that follow summarize state programs regarding asbestos in state-owned buildings as reported in responses to the survey. The charts cover eight program areas: building inspections, management programs, response actions, abatement projects, accreditation, training required, funding, and other activities. Subheadings within each chart correspond with questions in the survey.

I. BUILDING INSPECTIONS

STATE	STATE-OWNED BUILDINGS COVERED						INSPECTIONS REQUIRED BY			Mandate Procedures	Material Covered
	Office Buildings	Colleges/ Universities	State-Leased	Hospitals	Prisons	Other	Statute	Regulation	Policy		
AK	X					X			X	X	
AR	X	X	No	X	No	No			X	No	
CA	X	X		X	X	X			X	No	F/NF
CO	No	No	No	No	No	No	No	No	No	No	
CT	X	X		X	X	X			X	X	F/NF
DE	X	X	X	X	X	X			X	X	F/NF
FL	X	X		X	X	X	X			X	F/NF
GA	X	X		X	X				X	No	
IL	X			X	X	X	X			X	F/NF
IA	X			X	X				X		
KS	No	No	No	No	No	No	No	No	No	No	N/A
KY	X	X	X	X	X		X			No	F
LA	X	X	X	X	X	X			X	X	F/NF
MA	X	X	No	X	X	X	X			X	F/NF
MI	X			X	X	X			X		
MO	X		X	X	X	X	X	X		X	F/NF
MT	X	X		X	X	X			X	No	
NJ	X	X	X	X	X	X	X	X	X	X	F/NF
NM	X	X		X	X				X	No	
NY		X							X	No	
NC	X	X	X	X	X				X	No	
ND	X				X				X	No	
OK	X	X		X	X	X			X	X	F
RI	X	X		X	X	X	X	X		X	F/NF
SC	X	X		X	X	X			X	No	F/NF
TN	X	X		X	X	X			X	X	F/NF
VT	X	X	X	X	X	X	X			No	F/NF
WI	X	X	X	X	X		No	No	No	No	

Abbreviation Key

X	Affirmative Answer
No	Negative Answer
F	Friable
NF	Nonfriable

Where a space is blank, the state did not respond or information was not available.

II. MANAGEMENT PLANS/RESPONSE ACTIONS

STATE	MANAGEMENT PLANS IMPLEMENTED BY			RESPONSE ACTIONS/PLAN ELEMENTS					
	Statute	Regulation	Policy	Notification	Removal	Management	Periodic Surveillance	Re-inspections	Operations & Maintenance
AK		X		X	X	X	No	No	No
AR	No	No	No	X	X	X			
CA	No	No	No	X	X	X	REC	REC	REC
CO	No	No	No						
CT	No	No	X	X	X	REC	X	X	REC
DE			X	X	X	X	No	No	X
FL	X	No	No	X	X	X	X	X	X
GA	No	No	No						
IL			X	X	X	X	X	X	X
IA	No	No	X	X	X		REC	REC	X
KS	No	No	No						
KY	No	No	No	X	X				
LA	No	No	X	X	X	X	X	X	X
MA	No	No	No	X	X	X	X	X	X
MI	No	No	No	X	X	X			
MO	No	No	No	X	X	X			X
MT	No	No	No	X	X	X	REC	REC	
NJ	X	X	X	X	X	X	X	X	X
NM	No	No	No	X	X	X			
NY	No	No	No	X	X	X			
NC	No	No	No	X	X	X			X
ND	No	No	No	X	X	X			
OK	No	No	No	X	X	X	X	X	X
RI	X	X		X	X	X			X
SC	No	No	No	X	X	X			
TN	No	No	No	X	X	X			X
VT	No	No	No	X	X	X	X	X	X
WI	No	No	No		X	X	X	X	X

Abbreviation Key

X	Affirmative Answer
No	Negative Answer
REC	Recommended

Where a space is blank, the state did not respond or information was not available.

III. ABATEMENT PROJECTS						
	Projects in Occupied Buildings	AIR MONITORING			PERSONS USED	
STATE		Assessment	Post-Abatement	Technology/ Clearance Level	State Employees	Private Contractors
AK	X	X	X	X	X	X
AR	X	X	X	X	No	X
CA	X	No	X	PCM .01 f/cc	X	X
CO	X	X	X	TEM/PCM .01 f/cc		
CT	X	X	X	X	No	X
DE	X	X	X	TEM/PCM .01 f/cc	X	X
FL	X	X	X	TEM .01 f/cc	X	X
GA	X	X	X	TEM/PCM .01 f/cc	X	X
IL	X	X	X	X	X	X
IA	X	X	X		X	X
KS	X	No	X	TEM/PCM .01 f/cc	X	X
KY	X	No	X		No	X
LA	X	X	X	TEM .01 f/cc	No	X
MA	X	X	X	PCM .01 f/cc	X	X
MI	X	X	X	X	No	X
MO	X	X	X	PCM .01 f/cc	X	X
MT	X	X	X	PCM .01 f/cc	X	X
NJ	No	X	X	TEM .01 f/cc	X	X
NM	X	X	X	TEM .01 f/cc	No	X
NY	X	X	X	PCM .01 f/cc	X	X
NC	X	X	X	TEM/PCM	X	X
ND	X	X	X		X	X
OK	X	X	X	PCM .01 f/cc	X	X
RI	X	X	X	PCM .01 f/cc	X	X
SC	X	X	X	TEM/PCM	X	X
TN	X	X	X	PCM	X	X
VT	X	X	X	TEM/PCM .01 f/cc	X	X
WI	X	No	X	PCM .01 f/cc	No	X

Abbreviation Key

X	Affirmative Answer
No	Negative Answer
PCM	Phase Contrast Microscopy
TEM	Transmission Electron Microscopy
F/cc	Fibers per cubic centimeter

Where a space is blank, the state did not respond or information was not available.

IV. ACCREDITATION/TRAINING REQUIRED

STATE	Inspectors	Management Planners	Project Designers	Supervisors/ Contractors	Project Monitors	Custodial Personnel	Maintenance Personnel	Workers	Pre-qualifications	Fees	Continued Education
AK [1]				X	X			X	No	X	X
AR	No	No	No	X	No	No	No	X	X	X	X
CA	X	X	X	X	X			X	X	X	No
CO	X	X	X	X	No			X	No	X	X
CT	No	No	No	No	No	No	No	No	No	No	No
DE	X	X	X	X	X	No	X	X	X	X	X
FL	X	X	X	X	X	X	X		X	X	X
GA	X	X	X	X	X			X			
IL	X	X	X	X	X	X	X	X	X	X	X
IA	X		X	X		X	X	X	X	X	X
KS	No	No	No	X	No	No	No	X	X	X	X
KY	X	X	X	X	X	No	No	X	X	X	X
LA	X	X	X	X	X	X	X	X			X
MA	X	X	X	X	X	X	X	X	X	X	X
MI	No	No	No	X	No	No	No	X	X		X
MO				X					X		
MT	No	No	No	No	No	No	No	No	No	No	No
NJ	REC	REC	REC	X	X	X	X	X	X	X	X
NM	X	X	X	X				X			
NY				X				X			
NC	No	No	No	No	No	No	No	No	X	No	No
ND	X	X	X	X				X	No	X	X
OK				X				X	X	X	X
RI	X	X	X	X	No	X	X	X	No		X
SC	X	X	X	X		X		X			
TN				X				X			
VT	X	X	X	X	X			X	X		X
WI	No	No	No	X	No	No	No	X	X	X	X

Abbreviation Key

X	Affirmative Answer
No	Negative Answer
REC	Recommended

Where a space is blank, the state did not respond or information was not available.

Footnote:

[1] Anyone who enters a regulated area must be accredited.

V. FUNDING

STATE	Source	1988 [in dollars]		1989 [in dollars]	
		Capital Budget	Operating Budget	Capital Budget	Operating Budget
AK	GF;DB	*	*	*	*
AR	GF	*	*	*	*
CA	GF;DB	9,519,000	*	4,501,000	*
CO	*	*	*	*	*
CT	B	10,000,000	10,000,000	10,000,000	10,000,000
DE	B	3,000,000	250,000	3,000,000	250,000
FL	GF	12,750,000	11,150,000	2,425,000	1,135,000
GA	GF;DB	*	*	*	*
IL	GF;SF	10,000,000	*	24,090,000	*
IA	GF;DB	0	0	500,000	0
KS	DB	*	*	*	*
KY	DB	*	*	*	*
LA	GF	2,000,000	*	5,000,000	*
MA	B	6,000,000	560,000	6,000,000	560,000
MI	GF	4,000,000	*	4,000,000	*
MO	GF	1,000,000	*	1,000,000	*
MT	GF;DB	500,000	*	500,000	*
NJ	GF;DB	10,000,000	*	10,000,000	*
NM	GF;SF;B	1,200,000	0	0	0
NY	GF	1,000,000	*	*	*
NC	GF;DB;SF	750,000	*	750,000	*
ND	GF;DB	100,000	*	200,000	*
OK	GF;DB	*	*	*	*
RI	DB;B	20,000,000	*	*	*
SC	DB;B	8,200,000	*	5,000,000	*
TN	GF	5,800,000	*	6,600,000	*
VT	GF	1,000,000	*	*	*
WI	GF;DB	*	*	*	*

ABBREVIATION KEY

GF	General Fund
SF	Special Fund
DB	Departmental Budget
B	Bond
*	Information not available

VI. OTHER ACTIVITIES		
STATE	Anticipated Changes	Other Noteworthy Activities
AK		
AR	No	No
CA	X	X
CO		
CT		
DE	No	X
FL		
GA		
IL	X	
IA	X	
KS	No	
KY	X	
LA	No	
MA	X	
MI		
MO	X	
MT		
NJ	X	
NM		
NY		X
NC	X	
ND		
OK	No	X
RI	No	X
SC		
TN		
VT	No	
WI		

Abbreviation Key

X Affirmative Answer

No Negative Answer

Where a space is blank, the state did not respond.

STATE PROFILES

The information that follows relates to state-owned buildings, including state office buildings, and airports. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections; however, some departments are conducting inspections as a matter of departmental policy.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state responded that criteria exist, but details were not given.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 1% office buildings

b. 5% airports

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

The state indicated that management plans were required by regulation, but gave no details.

B. What response actions occur once asbestos is found?

1. **Notification** generally is given in writing to all building occupants.

2. **Removal** and **management** - The state analyzes economic and physical constraints in determining whether removal or management will be performed.

4. Response action schedules, periodic surveillance, reinspections, and operations and maintenance procedures are not required.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

The state conducts projects in occupied buildings following state and OSHA regulations.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

The state responded that it was, but gave no details.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Large projects are contracted out, while smaller projects, like glove bag operations, are performed by state employees.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Retraining	Fee	Prequalifications
Anyone Who Must Enter a Regulated Area	32 hrs.	X	75%	Every 3 years	$500-$800	No

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

What is the source of funds for inspections in state-owned buildings?

General funds and departmental budgets fund asbestos activities in state-owned buildings. The state did not give budget figures.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

The state did not respond.

The information that follows relates to state-owned buildings. It is limited to state office buildings, state colleges and universities, and state hospitals. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections of state-owned buildings, but certain departments are conducting inspections as a matter of department policy.

B. What kinds of materials do the inspections cover?

The state could not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 25% office buildings

b. 25% state colleges and universities

c. 25% state hospitals

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

1. **Notification** - For state office buildings, the building operator is notified.

2. **Removal** - For state office buildings, colleges and universities and hospitals, removals occur during demolition related to renovation and where ACM is friable.

3. **Management** - For state office buildings, management normally is utilized where ACM is nonfriable and renovation work is not planned.

The state did not have information regarding periodic surveillance, reinspections, and operations and maintenance procedures.

ARKANSAS

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

The state is conducting projects in occupied buildings, but other details were not provided.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes, but details of notification were not given.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during projects in state office buildings.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Air monitoring is used for reoccupancy, but details were not available.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

The state uses private contractors only.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequali-fications
Abatement Supervisor	32 hrs.	X	70%	X	$25	X
Abatement Contractor	Show use of certified employees				$300	X
Asbestos Worker	24 hrs.	X	70%	X	$25	No

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

General funds finance asbestos activities in state-owned buildings. Budget information was not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

No.

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Inspections for ACM are being conducted in state-owned buildings as a matter of state policy.

B. What kinds of materials do the inspections cover?

Inspections are for friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state does not mandate specific criteria for inspections and assessment of ACM in state-owned buildings.

D. Please estimate the completion rate (percentage) of asbestos inspections completed in state-owned buildings.

All state office buildings, state hospitals, state prisons, parks facilities, forestry camps, and other maintenance buildings have been inspected.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has quantified the amount and condition of asbestos in state-owned buildings, but the data has not yet been analyzed. The data will indicate conditions and the cost of responding to friable asbestos.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are not required in state-owned buildings.

B. What response actions occur once asbestos is found?

1. **Notification** to the department director and department asbestos coordinator is provided by certified mail.

2. **Removals** are being conducted based on available funding through the Office of the State Architect (OSA) based upon a risk assessment ranking.

3. **Management** is being conducted based upon risk assessment activities of the individual department's own initiative. OSA has no knowledge of any state-wide criteria.

4. **Periodic surveillance and reinspections** are recommended by OSA as part of the building operations and maintenance plan.

5. **Operations and maintenance plans** are recommended by OSA.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Asbestos abatement projects are being conducted in occupied buildings. The following procedures are followed: containment, warning signs, third-party air monitoring or evacuation of the building.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used during the project, but not before.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc using PCM are required in state-owned buildings.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

State employees and private contractors are used. State employees are used primarily for small jobs, but OSA had no specific details for state employee work by other departments.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

California requires contractor "certification" and abatement employee "registration."

Contractor "certification"
No state training requirements exist. The contractor is required to pass a six and one-half hour certification exam developed and administered by the California Contractors State License Board. The minimum passing score is 65 percent. A contractor must be licensed in its chosen trade as a prerequisite to taking the certification exam. No retraining requirements exist.

Abatement employee "registration"
In order to qualify for registration, the applicant must demonstrate adequate training as required by federal law (EPA-approved course for schools), insurance for workers, adequate equipment including respirators, relevant experience, and knowledge of relevant federal and state laws.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections in state-owned buildings?

General funds finance inspections in general-funded department state-owned buildings. Departmental funds finance inspections in special fund departments.

B. What is the source of funds for hazard assessment and response actions in state-owned buildings?

All state-owned buildings assessment and response activities are funded by general funds.

C. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989
Office Buildings	$ 990,000	$ 468,000
Special Schools	$2,009,000	$ 950,000
State Hospitals	$3,617,000	$1,710,000
State Prisons	$ 752,000	$ 356,000
Other State Buildings	$2,151,000	$1,017,000

Figures were not available regarding operating budgets.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state is initiating a procedure to allow contracting under emergency conditions.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

Some departments are conducting periodic air sampling.

COLORADO

The state of Colorado responded to the survey but indicated it has no central policy in state-owned buildings. Some inspections are being conducted, but not as a matter of state policy.

The state has a nonoccupational indoor air standard of .01 f/cc, which applies in public access buildings including state-owned buildings. Where this standard is exceeded, the state may order corrective action.

Accreditation of inspectors, management planners, project designers, supervisors/contractors, and workers is required in state-owned buildings. The requirements are equivalent to the EPA Model Plan. No other information is available.

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state requires inspections of all state-owned buildings as a matter of state policy.

B. What kinds of materials do the inspections cover?

The inspections cover friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

Department of Health regulations 19a-332-1 to 19a-332-16 govern inspection and assessment procedures.

D. Please estimate the completion rate (percentage) of asbestos inspections completed in state-owned buildings.

a. 100% office buildings

b. 100% state colleges and universities

c. 100% state hospitals

d. 100% state prisons

e. 100% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

This data is contained in individual reports from consultants. The total cost of abatement is estimated to exceed $106 million.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are required in state-owned buildings as a matter of policy. All asbestos will be removed on a priority basis as determined by the Department of Health Services following a review of consultant reports, and, in some cases, a re-examination of buildings.

B. What response actions occur once asbestos is found?

1. **Notification** is provided to agencies in the form of inspection reports.

2. **Removal** will be done by priority as funds are available. This will occur over a 10-year period.

3. **Management** is recommended to state agencies.

4. **Response actions** are prioritized by a modified EPA algorithm prepared by the Department of Health Services.

5. **Periodic surveillance** is required by state agencies.

6. **Reinspections** generally are included in bid packages prepared by design consultants.

7. **Operations and maintenance procedures** are recommended to maintenance personnel of state agencies.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Yes, pursuant to state general specifications for asbestos removal.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used as a means of assessment before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Yes, but details were not provided.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private contractors are used to conduct asbestos-related work with Department of Health Services oversight.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

Connecticut currently has no training or licensing requirements for persons working in state-owned buildings; however, current regulations, which take effect February 9, 1990, will require accreditation.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

Bonds are the source of financing for asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

The total budget for asbestos-related activities in state-owned buildings is $10 million for 1988 and $10 million for 1989.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

The state did not respond.

DELAWARE

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state-leased buildings, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

All state-owned buildings were inspected in 1985-1986 by an accredited AIHA firm.

B. What kinds of materials do the inspections cover?

The inspections covered friable and nonfriable material. ACM was categorized as thermal system insulation, surfacing material and miscellaneous ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state required use of the criteria set forth in the 1982 Asbestos in Schools Rule (Purple Book).

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 100% office buildings

b. 100% state colleges and universities

c. 100% state-leased buildings

d. 100% state hospitals

e. 100% state prisons

f. X other state buildings - All buildings purchased or leased since the original inspections must have an asbestos preinspection prior to purchase or lease.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

ACM was found in 400 of the state's 1,165 buildings. Inspection reports were compiled and a computerized priority list was developed. Friable, damaged ACM in areas of exposure was removed as soon as possible.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No, but the inspection reports contain the location and condition of the asbestos, laboratory results, chain of custody letters and response action recommendations.

B. What response actions occur once asbestos is found?

1. **Notification** - Each department head appointed an asbestos coordinator who was notified and then handled further notifications.

2. **Removal** is conducted on all ACM that is friable and damaged where there is exposure to staff, students and/or the general public. These areas are ssessed as priority #1.

3. **Management** is conducted where removal is not practicable or feasible. Repair is the preferred method; encapsulation and enclosure are discouraged because the procedure only delays future actions for renovation or demolition.

4. **Response actions** are scheduled according to priority, time and available funding. Response actions are scheduled for all renovation projects.

5. **Periodic surveillance** is not required.

6. **Reinspections** are not required.

7. **Operations and maintenance procedures** are established. All state personnel receive 14-hour awareness training. Some maintenance personnel have taken a five-day supervisor course and can respond to emergency situations. In all other cases employees must notify the asbestos coordinator. The state requires that all abatement projects be preapproved by the Asbestos Administration Office.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are conducted in occupied buildings. The state requires all projects to meet the National Institute for Building Standards (NIBS) specifications and AHERA procedures must be followed. The state also educates building occupants through an outreach program.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during projects.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc using TEM or PCM (depending on job specifications and contract) must be met.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private contractors are used except in some emergencies where security is a problem (i.e., prisons).

DELAWARE

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	24 hrs.	X	70%	1/2 day		No
Management Planner	40 hrs.	X	70%	1 day		No
Project Designer	24 hrs.	X	70%	1 day		No
Abatement Supervisor	47 hrs.	X	70%	1 day	$50	X
Abatement Contractor					$100	No
Asbestos Worker	35 hrs.	X	70%	1 day	$25	X
Project Monitor	Must possess supervisor's certificate to enter containment area.					
Custodial Personnel	None.					
Maintenance Personnel	Key personnel were trained at a five-day supervisor course. Others were given 14-hour awareness training.					

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

Bonds fund asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
All State-Owned Buildings Except Public Schools	$2 million	$2 million	$250,000	$265,000
Public Schools*	$1 million	$1 million		

Where a space is blank, figures were not available.

*The $1 million scheduled to public schools is a 60/40 split with the schools matching a state 60 percent share with 40 percent local money for each project. The state anticipates a $1.5 million budget for public schools in fiscal year 1990.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

No.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state must continuously plan and budget for renovation projects.

FLORIDA

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Florida Statute (FS) 255.551-255.565 requires inspections of state-owned buildings for ACM.

B. What kinds of materials do the inspections cover?

Inspections cover both friable and nonfriable ACM. The state categorizes ACM as thermal system insulation, surfacing material, and miscellaneous ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

FS 255.553 sets forth specific inspection and assessment criteria.

D. Please estimate the completion rate (percentage) of asbestos inspections completed in state-owned buildings.

a. 5% office buildings

b. 95% state colleges and universities

c. 95% state hospitals

d. 5% state prisons

e. 5% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has not quantified the amount or condition of asbestos in state-owned buildings.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

FS 255.557 requires management plans in state-owned buildings.

B. What response actions occur once asbestos is found?

1. Written **notification** is provided to all building occupants.

2. **Removal** is conducted where necessary for a renovation or demolition, or when it is more cost effective than management.

3. **Management** occurs where damaged asbestos is identified and/or airborne asbestos fiber levels exceed .01 f/cc.

4. **Periodic surveillance/reinspections** are required every six months.

5. An **operations and maintenance** plan must be initiated within 30 days of identification and must stay in effect until all asbestos is removed.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Asbestos abatement projects are being conducted in occupied buildings.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

The state provides notification regarding asbestos abatement activities.

C. Is air monitoring used as a means of assessment?

Air monitoring is used as a means of assessment before the project (occasionally) and during the project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc must be met upon completion of a project. At least two TEM readings must be taken on jobs exceeding 160 square feet or 260 linear feet.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

State employees are used for small-scale, short-duration projects in state colleges and universities. Private contractors are used for projects in other buildings.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee*	Prequalifications
Building Inspector	24 hrs.	X	70%	1/2 day		X
Management Planner	40 hrs.	X	70%	1 day		X
Project Designer	12 days	X		X		X
Abatement Supervisor	32 hrs.	X	70%	1 day		
Abatement Contractor	12 days	X	70%	1 day		X
Asbestos Worker	24 hrs.	X	70%	1 day		
Project Monitor	8 days	X	70%	1 day		

Custodial Personnel and **Maintenance Personnel** must receive AHERA-type awareness training.

***The state charges a $100 application fee, a $50 license fee, and a $150 fee per additional examination.**

FLORIDA

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

General funds finance asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
Office Buildings				
State Colleges and Universities	$12,750,000	$2,425,989	$175,000	$200,000
State Hospitals				
State Prisons				
Other State Buildings			$940,000	$935,000

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

The state did not respond.

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Inspections are not required in state-owned buildings; however, the state has established the Agency for Removal of Hazardous Materials (ARHM). Part of this agency's responsibilities involve the removal of asbestos in state-owned buildings, but this is not a mandatory requirement. The agency has received limited funding to survey some state buildings. Four college and hospital campuses have been surveyed.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

The state did not respond.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Formal management plans are not required in state-owned buildings.

B. What response actions occur once asbestos is found?

The state did not respond.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

The state is conducting projects in occupied buildings. The abatement area is isolated and air quality is monitored daily in occupied areas of the building.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Individual building operators handle notifications.

GEORGIA

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used before and during projects.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

AHRM follows AHERA clearance procedures after gross removals, but uses PCM following glove bag operations.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

State employees and private contractors are used to conduct asbestos-related work.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

Building inspectors, management planners, project designers, abatement supervisors, abatement contractors, and **asbestos workers** are required to be accredited. The state did not provide any details.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections in state-owned buildings?**

General funds and departmental budgets fund these activities.

B. **What is the source of funds for hazard assessment and response actions in state-owned buildings?**

Departmental budgets fund these activities.

C. **Please estimate the budget for asbestos-related activities in state-owned buildings.**

Figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to state-owned buildings, including state office buildings, state hospitals, state prisons, mental health/developmental disability facilities, and child care facilities. Illinois is focusing its initial survey on 24-hour facilities as a priority. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

SB 1463 requires inspections for ACM in state-owned buildings.

B. What kinds of materials do the inspections cover?

Inspections are for friable and nonfriable ACM. The survey will categorize ACM as thermal system insulation, surfacing material and miscellaneous material.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state has established specific inspection protocols.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 0% office buildings

b. 0% state colleges and universities

c. 0% state hospitals

d. 0% state prisons

e. 2% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are being developed as a matter of policy pursuant to state protocol.

B. What response actions occur once asbestos is found?

1. **Notification** will be provided.
2. **Removals** will be conducted as determined when the comprehensive survey is complete.
3. **Management** will be conducted pursuant to state protocol.

4. **Periodic surveillance, reinspections and operations and maintenance procedures** are set forth in a proposed operations and maintenance plan. This plan and the management protocol are similar in many respects to AHERA.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

Yes, pursuant to state-of-the-art work practices and the Illlinois Asbestos Abatement Act standards. Generally, the state follows the AHERA rules regarding abatement.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Yes, the state posts notifications similar to AHERA.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used as a means of assessment.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

Air monitoring is used to achieve clearance levels. The state did not provide details on clearance levels or technology.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

Private contractors and state employees are used to conduct work; state employees supervise private contractors.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequali-fications
Building Inspector	24 hrs.	X	70%	1/2 day	No	X
Management Planner	40 hrs.	X	70%	1 day	No	X
Project Designer	24 hrs.	X	70%	1 day	No	X
Abatement Supervisor	32 hrs.	X	70%	1 day	No	No
Abatement Contractor						
Asbestos Worker	24 hrs.	X			$25	X
Project Monitor	32 hrs.	X	70%	1 day		X
Custodial Personnel »	Training requirements are included in proposed state operations and maintenance plan					
Maintenance Personnel »						

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response activities in state-owned buildings?

General funds finance the state Asbestos Abatement Fund. Future recoveries through litigation and grants also will contribute to the fund.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989
All State Buildings (except colleges, universities)	$10,000,000	$24,090,000

Operating budget figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

The state is following state-of-the-art changes and will continue to change its program accordingly.

IOWA

The information that follows relates to state-owned buildings, including state office buildings, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections, but inspections are being conducted in state-owned buildings as a matter of departmental policy.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state did not respond.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 75% office buildings

b. 100% state hospitals

c. 100% state prisons

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are being implemented as a matter of policy.

B. What response actions occur once asbestos is found?

1. **Notification** - Each institution receives a copy of a survey that was conducted by an outside consultant.

2. **Removals** occur under emergency conditions or where necessary to do remodeling projects.

3. **Management** - The state did not respond.

4. **Periodic surveillance** - Each institution is responsible for surveillance, which is recommended twice a year.

5. **Operations and maintenance procedures** are implemented at each institution using certified personnel.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are being conducted in occupied buildings following formal requirements.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Employees are informed when a project is to be conducted.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

The state tries to achieve .02 f/cc per building.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

The state uses its employees under emergency conditions and will use private contractors on larger projects. Prisons and hospitals are using some state employees, while office buildings generally are using private contractors.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	24 hrs.	X	70%	1/2 day		No
Project Designer	24 hrs.	X	70%	1 day		Industrial Hygienist
Abatement Supervisor	32 hrs.	X	70%	1 day		No
Abatement Contractor						
Asbestos Worker	24 hrs.	X	70%	1 day		No
Custodial Personnel	Must be trained to recognize hazards and report to authority.					
Maintenance Personnel	Same as custodial, although most are state-certified.					

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

The Department of General Services has requested general funds. Departmental budgets are used.

B. **Please estimate the budget for asbestos-related activities in state-owned buildings.**

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
Office Buildings	$0	$0	$0	$0
State Hospitals	$0	$200,000	$0	$0
State Prisons	$0	$300,000	$0	$0

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings? Other noteworthy activities?

The state anticipates increased funding for asbestos activities.

Kansas has no formal program relating to asbestos in state-owned buildings. The state does not require inspections or management plans. Some state agencies are responding to asbestos problems once identified, but no systematic approach exists.

Kansas does require accreditation for the following persons conducting asbestos projects in state-owned buildings.

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Abatement Contractor	Licensed				$1,000	X
Abatement Supervisor	32 hrs.	X	70%	1 day	$30	X
Asbestos Worker	24 hrs.	X	70%	1 day	$15	X

KENTUCKY

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state-leased buildings, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Inspections of state-owned buildings for ACM are required by statute.

B. What kinds of materials do the inspections cover?

Inspections cover friable ACM only. Inspectors categorize ACM as thermal system insulation, surfacing material, and miscellaneous material.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 20% office buildings

b. 65% state colleges and universities

c. 20% state-leased buildings

d. 70% state hospitals

e. 65% state prisons

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

The building manager is notified if ACM is present, and the notice is posted. Removals are conducted where ACM is friable. ACM may not be disturbed without notification and consultation with the state asbestos coordinator. The state did not respond regarding management, periodic surveillance, reinspections and operations and maintenance procedures.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are conducted in occupied buildings following Kentucky abatement regulations.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

No.

C. Is air monitoring used as a means of assessment?

Air monitoring is used during a project but not before.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Air monitoring is used only in post-abatement projects where the area was earlier evacuated.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private contractors are used for all projects.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	Must be an industrial hygienist.					
Project Designer	Must be a licensed architect or engineer.					
Abatement Supervisor	32 hrs.	X	70%	X	$20	No
Abatement Contractor	32 hrs.	X	70%	X	$20	No
Asbestos Worker	Must receive eight-hour training from the supervisor.					
Project Monitor	Must use state-licensed laboratory.					

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, assessment and response actions in state-owned buildings?

Departmental budgets are the source of funding for inspections in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

Budget estimates were not available.

KENTUCKY

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state anticipates more attention and funding will occur in state-owned buildings.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to all state-owned buildings constructed prior to 1980, including state office buildings, state-leased buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state is inspecting state-owned buildings constructed prior to 1980 for ACM as a matter of state policy.

B. What kinds of materials do the inspections cover?

Inspections cover friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state has developed inspection protocol.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

The state was not able to give percentages, as the survey currently is underway and is targeted for completion in September 1989.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

The state requires management plans in buildings where ACM is discovered, as a matter of state policy.

B. What response actions occur once asbestos is found?

Facility directors will receive a copy of the final survey, which will make recommendations regarding removal, management, periodic surveillance, reinspections, and operations and maintenance procedures.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are being conducted in occupied state-owned buildings following state-of-the-art industry practices.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Yes.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used as a means of assessment before and during a project.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

Clearance levels of .01 f/cc using TEM must be met.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

The state uses private contractors to conduct asbestos-related work.

IV. ACCREDITATION

A. **What qualifications or training are required for individuals or entities conducting asbestos-related work in state-owned buildings?**

Louisiana has three basic categories of asbestos professionals subject to accreditation in state-owned buildings. First, asbestos "agents" includes inspectors, management plan designers, certain supervisors, third-party monitors and certain workers. Second, "asbestos abatement entity" includes contractors. Third, "first line supervisors" and "workers" includes those involved in maintenance that may disturb asbestos, but that does not involve removal or encapsulation.

For asbestos projects involving friable asbestos, personnel in the first and second categories (i.e., inspectors, management plan designers, certain supervisors, third-party project monitors, certain workers, and contractors) must attend a training course approved by the Louisiana Air Quality Division. Currently, the approved course provides 32 hours of training (four hours of hands-on) for all persons mentioned above, except workers involved in hands-on abatement or maintenance of friable asbestos, who must attend a 16-hour training course. Contractors must have an occupational license from the Contractor Licensing Board as a prerequisite to accreditation. Persons in both categories discussed above must achieve a 70 percent minimum score on the accreditation examination and be retrained yearly.

The third category of asbestos professionals (first line supervisors and workers involved in maintenance that may disturb asbestos, but which does not involve removal or encapsulation) may be trained by a supervisor who has received the training outlined in the preceding paragraph. The training program provided by the supervisor must include at least eight hours of initial training and four hours of annual refresher training. No examination requirements exist for this group.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections, assessment and response actions in state-owned buildings?**

General funds finance these activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

The capital budget for all state-owned buildings for 1988 was $2 million. For 1989, $5 million will be requested. Operating budget figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

No.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

MASSACHUSETTS

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, state prisons, armories, mental health facilities, police training academies, fisheries and wildlife buildings, and metropolitan district commission buildings. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. **Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?**

The Division of Occupational Hygiene (DOH) was mandated by statute to investigate hazards to occupants in public buildings. Buildings also were surveyed in relation to litigation.

B. **What kinds of materials do the inspections cover?**

The inspections cover friable and nonfriable ACM. The inspections categorized ACM as thermal system insulation, surfacing material and miscellaneous ACM.

C. **Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?**

Personnel who conduct inspections and assess hazards must be certified by the state.

D. **Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.**

a.	90-100%	office buildings
b.	90-100%	state colleges and universities
c.	90-100%	state hospitals
d.	90-100%	state prisons
e.	50%	other state buildings

E. **Has the state quantified the amount of asbestos and its condition in state-owned buildings?**

Initially, amounts of asbestos were quantified in preparation for litigation. Additional surveys are underway to further quantify the asbestos and assess its condition. This data is used to prioritize buildings.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. **Are formal management plans required for asbestos in state-owned buildings?**

Management plans are not required in state-owned buildings.

B. **What response actions occur once asbestos is found?**

1. **Notification** is given to the building owner/manager by the Division of Occupational Hygiene. Meetings are held with building occupants prior to removal projects. Maintenance employees and others are informed of the ACM's location and instructed not to disturb the material.

2. **Removals** occur where a hazardous situation exists or repairs cannot be made. Removal also occurs prior to demolition.

3. **Management** is considered a short-term activity. Management occurs when material is inaccessible and there are no demolition plans.

4. **Response actions** are scheduled according to DOH's prioritization of projects based on risk to occupants and employees. Response actions also are scheduled prior to renovations or demolitions that would disturb asbestos.

5. DOH conducts **periodic surveillance** where removal is not expected to occur immediately. The Division of Capital Planning and Operations conducts surveys to update the condition of the material.

6. **Operations and maintenance procedures** are suggested by DOH following a survey. DOH provides training to maintenance personnel who may come in contact with asbestos during job performance.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are conducted in occupied areas with isolation, containment, and continuous air monitoring. Projects must comply with state abatement standards, 453 Code of Massachusetts Regulations (CMR) 6.0.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

A letter is sent to the facility that details the work area, contractor, and other relevant information. The facility is instructed to notify building occupants. When necessary, a question and answer session is arranged for building occupants.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during the project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc using PCM must be met on all jobs except glove bag operations.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

MASSACHUSETTS

State employees who have been trained are allowed to work on projects involving less than three square or linear feet of asbestos. Private contractors are used on all other jobs.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequali-fications
Building Inspector	24 hrs.	X	70%	X	$300	X
Management Planner	40 hrs.	X	70%	X	$300	X
Project Designer	24 hrs.	X	70%	X	$300	X
Abatement Supervisor	40 hrs.	X	70%	X	$100	X
Abatement Contractor	40 hrs.	X	70%	X	$2,000	X
Asbestos Worker	32 hrs.	X	70%	X	$25	No
Project Monitor	40 hrs.	X	70%	X	$300	X
Custodial Personnel>						
	Two-day training course					
Maintenance Personnel>						
Analytical Services (Laboratories)					$350	

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, assessment and response actions in state-owned buildings?

A $6 million bond funds these activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

All state-owned buildings except the Saltonstall Building are funded at $6 million in 1988 and 1989 for capital budget, and $560,000 for 1988 and 1989 in operating budget. The Saltonstall Building has a $19 million budget.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

There may be a clarification of regulations regarding nonfriable asbestos (roofing and siding).

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to state-owned buildings, including state office buildings, state hospitals, state prisons, and maintenance and power plants. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections of state-owned buildings; however, some state agencies are conducting inspections as a matter of departmental policy.

B. What kinds of materials do the inspections cover?

The state was not able to respond, as no state-wide policy exists.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections completed in state-owned buildings.

The state was not able to respond.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

1. **Notification** is provided in writing to the affected department.

2. **Removals** are being conducted where the asbestos is in a condition and/or location that may pose a health threat.

3. **Management** occurs where the location and/or condition does not present a health hazard.

The state did not respond regarding periodic surveillance, reinspections and operations and maintenance procedures.

MICHIGAN

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

The state is conducting abatement in occupied buildings. The area is environmentally segregated and there is continuous air monitoring during abatement.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Yes, but the state did not provide details.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private, licensed contractors are used pursuant to state law.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

Contractors are licensed, while the contractors' employees (supervisors and workers) must be certified. Contractors are licensed in two categories: Type I, up to four employees--$200; Type II, greater than four employees--$400.

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Prequalifications
Abatement Supervisor	32 hrs.		X	X	
Abatement Contractor	Licensed				
Asbestos Worker	16 hrs.		X	X	X

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment, and response actions in state-owned buildings?

General funds finance asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989
Office Buildings	$1,000,000	$1,000,000
State Hospitals	$1,000,000	$1,000,000
State Prisons	$2,000,000	$2,000,000

Operating budget figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

MISSOURI

The information that follows relates to state-owned buildings, including state office buildings, state-leased buildings, state hospitals, state prisons, parks, historic sites, and highway patrol and national guard buildings. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

HB 903 requires inspections for ACM in state-owned buildings.

B. What kinds of materials do the inspections cover?

Inspections cover friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state does not mandate specific procedures or criteria for inspections and assessment.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.*

a. 100% office buildings

b. 20% state-leased buildings

c. 100% state colleges and universities

d. 100% state hospitals

e. 100% state prisons

f. 90% other state buildings

*These figures relate to buildings constructed prior to 1980.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

Buildings were ranked on a priority basis and the amount of asbestos is quantified to arrive at remedial cost figures.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are not required, but policies have been developed and building managers are trained to implement these policies.

B. What response actions occur once asbestos is found?

1. **Notification** is provided depending upon the exposure potential and accessibility. Notification occurs pursuant to priority ranking.

2. **Removal** is conducted for certain priority ranked buildings or where needed to complete construction or renovations.

3. **Management** occurs in lower-priority-ranked buildings where it is determined that management will be adequate.

4. **Response actions** are scheduled by priority, according to availability of funds.

5. **Operations and maintenance procedures** are used for minor emergency repairs.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

Yes, but industry standards must be followed, including containment barriers and negative-air enclosures.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Yes.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used in some cases before a project and is required during a project.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

The state requires .006 f/cc using PCM be met for clearance.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

The state primarily uses private contractors, although state employees are used for small-scale, short-duration emergencies.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

Currently, contractors must be "registered" to conduct work in state-owned buildings. This requirement essentially is the equivalent of the federal OSHA "competent person" requirement. Legislation to establish accreditation currently is pending in the state legislature. The state also has established hands-on training for state maintenance personnel.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?**

General funds finance inspections, hazard assessment and response actions.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

Exact expenditures and budgets were not available. The Office of Administration is requesting $1 million in 1989 for unforeseen problems.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

Pending legislation would establish an accreditation program.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, state prisons, armories, recreation facilities, maintenance facilities, and state schools. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state has inspected all major facilities as a matter of state policy. Some buildings constructed after 1982 and unheated or maintenance buildings were not included.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a.	100%	office buildings	e.	90%	armories
b.	92%	state colleges and universities	f.	0%	recreation areas
c.	85%	state hospitals	g.	10%	maintenance facilities
d.	88%	state prisons	h.	65%	state schools

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

Zero-5 percent contain no ACM; 30-33 percent contain ACM but no action or deferred action is recommended; 20-25 percent require removal or some kind of abatement.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

1. **Notification** is given to the building administrator in the form of a copy of survey results.

2. **Removal** of ACM occurs according to a statewide priority list based on the severity of the hazards and the availability of funds.

3. **Management** occurs in physical plants or where removal is not warranted.

4. **Periodic surveillance** is required in physical plants where recommended by the survey.

5. **Reinspections** occur on an occasional basis, but there is no formal requirement.

6. **Operations and maintenance procedures** - The state did not respond.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are being conducted in occupied buildings, in accordance with Montana abatement standards.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

The building administrator and physical plant supervisor are notified.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during projects.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc using PCM must be met.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Physical plants with trained personnel perform minor projects. Private contractors conduct all other work.

IV. ACCREDITATION

A. What qualifications or training are required for individuals or entities conducting asbestos-related work in state-owned buildings?

The state does not require training.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, assessment and response actions in state-owned buildings?

Capital funding is used for asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989
Office Buildings		$100,000
State Colleges and Universities	$100,000	

	Capital Budget 1988	Capital Budget 1989
State Hospitals	$150,000	
State Prisons		
Other State Buildings	$250,000	

Operating budget figures were not available.
Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

No.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

NEW JERSEY

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state-leased buildings, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildngs, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

New Jersey Statutes Annotated (NJSA) 34:6A-25 et seq.; New Jersey Annotated Code (NJAC) 5:23-8 et seq. and 12:100 et seq.; and The Asbestos Policy Committee Report to the Governor (APCRG), March 1985, make up the state's inspection program.

B. What kinds of materials do the inspections cover?

The inspections cover friable and nonfriable material and include categorization of material as thermal system insulation, surfacing material, and miscellaneous ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The APCRG and Department of Health set forth procedures and criteria for inspections and assessment.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 10% office buildings

b. 50% state colleges and universities

c. 60% state hospitals

d. 2% state prisons

e. 20% state-leased buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has not quantified amounts and conditions of asbestos.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

NJSA 34:6A-25 et seq., NJAC 12-100 and the APCRG set forth management plan requirements.

B. What response actions occur once asbestos is found?

1. **Notification** in writing is provided to the affected facility manager, the Division of Building and Construction, the Department of Community Affairs, and the Department of Property and Facility Management.

2. **Removal** - The following considerations are made: (1) is air level above .01 f/cc using TEM; (2) percent of damage; (3) future and current use; (4) accessibility; and (5) material in air plenum.

3. **Management** generally occurs in situations of inaccessibility and where the damaged area is less than 15 percent (minor damage).

4. **Response actions** generally are given a two-year timeframe.

5. **Periodic surveillance is required** as part of a facility's management plan.

6. **Reinspections** are conducted every two years as a matter of policy.

7. **Operations and maintenance procedures** are prescribed for renovations and minor repairs.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

Buildings are not occupied during major projects.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Notification of projects is given.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used before and during a project.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

Using TEM, .01 f/cc must be met for reoccupancy.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

State employees are used for assessment, plan design, and scope of work. Small-scale jobs (less than 25 square or 10 linear feet) also are performed by state maintenance/custodial workers. Air monitoring and large-scale jobs are performed by private contractors.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	>					
Management Planner	> Recommend EPA-accredited persons					
Project Designer	>					

NEW JERSEY

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Abatement Supervisor	30 hrs.	8 hrs.	70%	1 day	$20	X
Abatement Contractor	Licensed				$200	X
Asbestos Worker	30 hrs.	8 hrs.	70%	1 day	$20	X
Third-Party Project Technician	2 days	X	70%	1 day	$20	X
Custodial Personnel	Details not provided.					
Maintenance Personnel	Details not provided.					

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections in state-owned buildings?**

General funds and departmental budgets fund inspections.

B. **What is the source of funds for hazard assessment and response actions in state-owned buildings?**

Department of Health budget funds assessment. Response actions are funded by affected facilities' department budget and the General Service Administration.

C. **Please estimate the budget for asbestos-related activities in state-owned buildings.**

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
All State-Owned Buildings	$10,000,000	$10,000,000		

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

Proposed legislation would extend the inspection and management plan requirements of AHERA into state-owned buildings.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildngs, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. **Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?**

The state does not require inspections in state-owned buildings, but some buildings are being inspected as a matter of policy.

B. **Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?**

Procedures are not mandated.

C. **Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.**

The state did not respond.

D. **Has the state quantified the amount of asbestos and its condition in state-owned buildings?**

The state has not quantified the amount of asbestos.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. **Are formal management plans required for asbestos in state-owned buildings?**

Formal management plans are not required.

B. **What response actions occur once asbestos is found?**

1. **Notification** - The state did not respond.

2. **Removals** occur in emergency situations (fiber releases) and prior to renovation.

3. **Management** is done depending upon the hazard related to the condition and availability of funds.

4. **Response action** - The state did not respond.

5. **Periodic surveillance required** - The state did not respond.

6. **Reinspections** - The state did not respond.

7. **Operations and maintenance procedures** - The state did not respond.

NEW MEXICO

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

The state is conducting abatement projects with isolation of the area or evacuation.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

The state notifies, but did not give details.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used before and during the project.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

Air monitoring is used during post-abatement following AHERA procedures.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

Private contractors are used to conduct asbestos-related work.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

The state requires the following persons to have EPA-approved training as a matter of policy, but no state training is required: building inspectors, management planners, project designers, abatement supervisors, abatement contractors, and asbestos workers.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections in state-owned buildings?**

General funds, severance tax bonds, and special fund revenues finance inspections.

B. **What is the source of funds for hazard assessment and response actions in state-owned buildings?**

Capital appropriations related to capital improvements fund abatement activities.

C. **Please estimate the budget for asbestos-related activities in state-owned building**

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
Office Buildings	$1,200,000	$0	$0	$0

Figures for other buildings were not available

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

NEW YORK

New York has no systematic or centralized program for asbestos in state-owned buildings. The information that follows relates primarily to state colleges and universities. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

No, but all state colleges and universities were inspected in association with gathering information for renovation projects. These are the only buildings for which data is available.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

100% of the state colleges and universities have been inspected.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has quantified the amount of asbestos and its condition in colleges and universities.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are not required in state-owned buildings.

B. What response actions occur once asbestos is found?

1. **Notification** is provided. The state did not provide details.

2. **Removal** takes place when necessary to perform renovation work or if the asbestos is deemed hazardous.

3. **Management** takes place when the asbestos is nonfriable and will not be disturbed by renovation.

The state did not respond regarding periodic surveillance, reinspections or operations and maintenance procedures.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Abatement projects are conducted in occupied buildings following Industrial Code Rule 56 (isolation of the work area, negative air pressure, etc.).

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

The state did not respond.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

The state requires .01 f/cc using PCM in state-owned buildings.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private contractors are used primarily, although state employees conduct some small maintenance jobs.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

Abatement supervisors, contractors and workers, custodial personnel and maintenance personnel must be trained and certified, but the state did not provide details.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections in state-owned buildings?

The state did not respond.

B. What is the source of funds for hazard assessment and response actions in state-owned buildings?

The state did not respond.

C. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
State Colleges and Universities	$7,000,000			

Where a space is blank, figures were not available.

NEW YORK

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

Some surveys are being conducted by state agencies, but there is no comprehensive asbestos management program.

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections for ACM, but a visual walk-through was conducted in 1984 as a matter of policy.

B. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

C. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 10% office buildings

b. 10% state colleges and universities

c. 10% state hospitals

d. 10% state prisons

D. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

As a result of the 1984 walk-through visual inspections, the state determined an estimated 80 percent of state-owned buildings contain suspected ACM. The state owns approximately 11,000 buildings.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are not required in state-owned buildings.

B. What response actions occur once asbestos is found?

1. **Notification** is provided in writing where ACM is discovered.

2. **Removal** occurs during renovations in buildings where ACM will be disturbed or if the material is in a condition that causes a health hazard.

3. **Operations and maintenance procedures** are recommended.

The state did not respond regarding management, response actions, periodic surveillance and reinspections.

NORTH CAROLINA

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Yes, the state is conducting operations and maintenance and removals in occupied buildings.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during a project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Visual inspections, PCM and TEM are used, depending on the circumstances.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

State employees and private contractors conduct state asbestos-related work.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

The state does not require accreditation for asbestos projects in state-owned buildings (other than schools). A CIH is required on all removal projects in state-owned buildings exceeding $30,000. The state also offers a state-sponsored course on asbestos for state maintenance personnel.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

General funds and departmental budgets fund asbestos activities in state-owned buildings. The legislature also has established a state asbestos reserve fund.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
All State-Owned Buildings	$750,000	$750,000		

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state has proposed legislation to require accreditation in private and public buildings.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

NORTH DAKOTA

The information that follows relates to state-owned buildings, including state office buildings and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Inspections are not required by the state, but certain state agencies are inspecting their own buildings as a matter of departmental policy.

B. What kinds of materials do the inspections cover?

The state did not respond.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 75% office buildings

b. 75% state prisons

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

No.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

*The information below relates only to state **office buildings** and **prisons**.*

1. **Notification** is given in writing or by an assessment report to the plant facility director. The Department of Health also is notified.

2. **Removal** occurs only where the ACM presents an immediate safety and health problem for building occupants and other means of management are not effective.

3. **Management** is chosen where no immediate threat exists. To date, the state has used both encapsulation and enclosure, but not repair.

The state did not respond regarding response actions, periodic surveillance, reinspections, and operations and maintenance procedures.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

*The information below relates to state **office buildings** only.*

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are being conducted in occupied buildings. Comprehensive abatement procedures and containment are required.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Persons who need to know are notified. Entry and exit are restricted and notification is posted.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during projects.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

The state did not respond.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

State employees who have been trained and private contractors are used by the state.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/Score	Annual Retraining	Fee	Prequalifications
Building Inspector	24 hrs	X	70%	1/2 day	$25	No
Management Planner	40 hrs	X	70%	1 day	$25	No
Project Designer	24 hrs	X	70%	1 day	$25	No
Abatement Supervisor	32 hrs	X	70%	1 day	$25	No
Abatement Contractor	General contractor's license, must use certified workers				$100	No
Asbestos Worker	24 hrs	X	70%	1 day	$25	No

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment and response actions in state-owned buildings?

General funds through departmental budget requests fund asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

The budget figures below relate to the Capitol Complex buildings only.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
Capitol Complex	$100,000	$200,000		

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

State inspections are required in state-owned buildings as a matter of state policy.

B. What kinds of materials do the inspections cover?

The inspections cover only friable ACM. The state categorizes ACM as thermal system insulation, surfacing material, and miscellaneous ACM (including ceiling tile).

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state has established a specific format to be followed for hazard assessment.

D. Please estimate the completion rate (percentage) of asbestos inspections completed in state-owned buildings.

a. 100% state colleges and universities

b. 100% state hospitals

c. 100% state prisons

d. 100% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has quantified the amount of asbestos in state-owned buildings.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

The state does not require formal management plans.

B. What response actions occur once asbestos is found?

1. **Notification** of agency directors was done in 1985, following the governor's asbestos program survey.

2. **Removal** is conducted where surveillance or emergency response activity indicates a need. The state has a priority list.

3. **Management** usually is recommended for thermal system insulation only if the condition of the material merits repair.

4. **Reinspections** are required in all state buildings identified as containing friable ACM. The Department of Health conducts visual inspections in all state buildings twice a year.

5. **Operations and maintenance procedures** are initiated on a case-by-case basis as needed.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

Only under certain conditions and under the scrutiny of the departments of Health and Labor.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Information regarding the project must be provided to the Department of Health and the project must be approved prior to commencement.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used as a means of assessment in some cases and is required during all projects.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

Projects in state buildings are subject to a .01 f/cc occupancy level using PCM.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

Some larger agencies have their own abatement personnel, but agencies may use private contractors.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Abatement Contractor	64 hrs.	X	70%	X		
Asbestos Worker	32hrs.	X	70%	X		

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. **What is the source of funds for inspections in state-owned buildings?**

Departmental budgets of state and county health departments and a one-time general fund appropriation fund inspections.

B. **What is the source of funds for hazard assessment and response actions in state-owned buildings?**

The state health department budget funds hazard assessment. The departmental budget of the specific agency involved and the Office of Public Affairs department budget fund response actions.

C. **Please estimate the budget for asbestos-related activities in state-owned buildings.**

Budget estimates were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

Changes would be made only if AHERA were extended to state-owned buildings.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state has begun to address ceiling tile in state-owned buildings.

RHODE ISLAND

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildngs, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

Title 23, Chapter 24.5, General Laws of Rhode Island, as amended; and the Department of Health's Regulations for Asbestos Control, R. 23-24.5, require inspections in high-priority buildings, intermediate-priority buildings, and buildings where asbestos-related complaints have been lodged. High-priority buildings are those facilities that are child-inhabited (public and private schools, nursing centers, day care centers, etc.). The department was required to inspect all high-priority facilities within 180 days of the passage of Title 23, Chapter 24.5 (July 1, 1985). Intermediate-priority buildings include essentially all facilities of public access, including state-owned buildings. These buildings are required to be inspected, but no deadlines are set. The department currently is inspecting only those buildings against which a complaint has been lodged.

B. What kinds of materials do the inspections cover?

The inspections cover friable and nonfriable material.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The Department of Health's regulations for asbestos control mandate inspection and assessment criteria.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

Estimates were not available.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The data is computerized but not available in a building or area type format.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Buildings with ACM must file an abatement plan or operations and maintenance plan and a building management plan with the Department of Health. 23-23.5-6, General Laws of Rhode Island, as amended. The building owner must determine whether the ACM should be abated or managed pursuant to an O&M plan. The abatement plan or operations and maintenance plan and the building management plan must be submitted to the department for approval. The department has adopted a standard form for building management plans that is similar to the AHERA management plan requirements except the categories of assessed material differ. Periodic reinspection is not required by statute, but is required within an acceptable building management plan. These reinspections must be conducted by accredited personnel. The department determines whether to approve or disapprove a management plan on a case-by-case basis. All the above requirements apply to state-owned buildings.

B. **What response actions occur once asbestos is found?**

1. **Notification** is provided to each department head or building manager.

2. **Removal** or management decisions are made based on the condition of the material. Operations and maintenence plans and abatement plans must be submitted to the Department of Health for approval. As a general rule, most asbestos is removed if the cost over a two-year period exceeds 60 percent of the removal costs.

3. **Operations and maintenance procedures** are required.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

The state does conduct projects in occupied buildings following strict work practice standards.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

All persons listed above are notified.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used in pre-abatement.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

PCM measurements must be below .01 f/cc for reoccupancy.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

State staff conduct inspections and small-scale projects. Larger projects are conducted by private contractors.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	24 hrs	X	70%	1/2 day		No
Management Planner	40 hrs	X	70%	1 day		No
Project Designer	24 hrs	X	70%	1 day		No
Abatement Contractor	32 hrs	X	70%	1 day		No

RHODE ISLAND

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Asbestos Worker	32 hrs.	X	70%	1 day		No
Custodial Personnel	14 hrs.	X				
Maintenance Personnel	14 hrs.	X				

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections in state-owned buildings?

Departmental budgets and bond funds finance inspections.

B. What is the source of funds for hazard assessment and response actions in state-owned buildings?

Departmental budgets and bond funds finance abatement activities. Projects must qualify for bond money based on a hazard ranking.

C. Please estimate the budget for asbestos-related activities in state-owned buildings.

The bond authorization for all projects is $20 million; $4 million has been sold to date.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

No.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

$250,000 of the bond money referred to above is used for public education and outreach through the Rhode Island Community College.

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state hospitals, state prisons, warehouses, armories, athletic field structures, and park type structures. Where answers vary for specific types of state-owned buildngs, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not mandate inspections, but is in the process of a statewide survey of state-owned buildings as a matter of policy.

B. What kinds of materials do the inspections cover?

The inspections cover friable and nonfriable ACM and include categorization of material as thermal system insulation, surfacing material and miscellaneous ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state does not mandate procedures or criteria for inspections or assessment.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

The state did not respond.

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state is quantifying material, but figures were not yet available.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Formal management plans are not required, but the South Carolina Asbestos Task Force has had each state agency designate an asbestos program manager (APM). These APMs currently are receiving training. The Asbestos Task Force also is preparing a model management plan for distribution to the APMs.

B. What response actions occur once asbestos is found?

Notification, removal and management are taking place, but not pursuant to any central policy or plan.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Abatement projects are being conducted, but occupants are moved out during the project.

SOUTH CAROLINA

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

No.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during the project.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

PCM and TEM are used to clear buildings.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Some universities use their own trained crews on small projects, but all large projects are conducted by private contractors.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length
Building Inspector	24 hrs.
Management Planner	40 hrs.
Project Designer	24 hrs.
Abatement Supervisor	32 hrs.
Abatement Contractor	32 hrs.
Asbestos Worker	24 hrs.
Asbestos Program Manager (recommended)	Supervisor (32 hrs.) and management planning (14 hrs.) course
Custodial Personnel	AHERA operations and maintenance and 1 day asbestos worker training

Other information was not available.

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections in state-owned buildings?

Capital improvement bond funds are used for the statewide inspection.

B. **What is the source of funds for hazard assessment and response actions in state-owned buildings?**

Capital improvement bond funds, departmental budgets and Department of Education loans fund these activities.

C. **Please estimate the budget for asbestos-related activities in state-owned buildings.**

	Capital Budget 1986	Capital Budget 1988	Operating Budget 1988	Operating Budget 1989
All Buildings	$8,200,000	$5,000,000		

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

TENNESSEE

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

All state-owned buildings were inspected for ACM in 1984/1985 as a matter of state policy.

B. What kinds of materials do the inspections cover?

The inspections covered friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

The state did not respond.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

The only buildings not inspected were small buildings not housing people.

a. 100% office buildings

b. 95% state colleges and universities

c. 100% state hospitals

d. 95% state prisons

e. 95% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state has quantified the condition of the asbestos.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Formal management plans were not required as the inspections and most abatement were conducted prior to AHERA. The state departments did follow state policy in responding to asbestos.

B. What response actions occur once asbestos is found?

1. **Notification** was given to all state employees via a notice with paychecks. Meetings were held where employees expressed an interest.

2. **Removal** was conducted on friable asbestos in public areas and prior to renovations where the asbestos was in poor condition.

3. **Management** was initiated where it was impractical to remove and a potential for exposure was present.

4. **Operations and maintenance procedures** were recommended by the state. The state provided training and equipment to deal with local emergencies. The state has a trained asbestos team available.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. **Is the state conducting asbestos abatement projects of any kind in occupied buildings?**

Yes, with containment, negative air setup and air monitoring.

B. **Does the state notify employees, building occupants or others of asbestos abatement projects?**

Yes, in the area of work.

C. **Is air monitoring used as a means of assessment?**

Air monitoring is used before and during the project.

D. **Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?**

The state requires post-abatement air monitoring using PCM.

E. **Is the state using state employees, private contractors, or both to conduct asbestos-related work?**

State employees and private contractors are used to conduct asbestos work.

IV. ACCREDITATION

A. **What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?**

The contractor must demonstrate successful completion of an EPA-approved or -sponsored course by at least one of its employees.

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Project Designer	Must have a state architect's or engineer's license and carry liability insurance.					
Abatement Supervisor	32 hrs	X	70%	1/2 day		
Abatement Contractor	32 hrs	X	70%	1/2 day		
Asbestos Worker	32 hrs	X	70%	1/2 day		

TENNESSEE

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections in state-owned buildings?

The original inspection was funded by general funds through the State Building Commission.

B. What is the source of funds for hazard assessment and response actions in state-owned buildings?

The state did not respond.

C. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989
Office Buildings	$ 500,000	$ 250,000
State Colleges and Universities	$4,000,000	$5,000,000
State Hospitals	$ 500,000	$ 800,000
State Prisons	$ 500,000	$ 250,000
Other State Buildings	$ 300,000	$ 300,000

Operating budget figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

The information that follows relates to all state-owned buildings, including state office buildings, state colleges and universities, state-leased buildings, state hospitals, state prisons, state police buildings, Agency of Transportation buildings, military buildings, state libraries, Department of Forests and Parks, and state historic sites. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

H 773 requires inspections of state-owned buildings for ACM.

B. What kinds of materials do the inspections cover?

Inspections cover friable and nonfriable ACM.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

Inspection criteria are set forth in contractor specifications.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 100% office buildings

b. 100% state-leased buildings

c. 100% state colleges and universities

d. 100% state hospitals

e. 100% state prisons

f. 100% other state buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state is quantifying the amount and condition of the asbestos, but the report is not yet available.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

Management plans are not required in state-owned buildings. Some departments are implementing management plans as a matter of policy.

B. What response actions occur once asbestos is found?

Notification, removal, management, periodic surveillance, reinspection, and operations and maintenance issues all are decided on a case-by-case basis.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Yes, but projects must comply with Department of Health abatement standards.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

No.

C. Is air monitoring used as a means of assessment?

Air monitoring is used before and during abatement projects.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

The state requires .01 f/cc using PCM or TEM.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Private contractors do most of the work. State employees are used for emergency work only.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Building Inspector	24 hrs.	X	70%	1 day		X
Management Planner	40 hrs.	X	70%	1 day		X
Project Designer	24 hrs.	X	70%	1 day		X
Abatement Supervisor	32 hrs.	X	70%	1 day		X
Abatement Contractor	32 hrs.	X	70%	1 day		X
Asbestos Worker	24 hrs.	X	70%	1 day		X
Project Monitor	32 hrs.	X	70%	1 day		X
Analytical Services	OSHA- or NIOSH-approved sampling course and participation in PAT program.					

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

A. What is the source of funds for inspections, hazard assessment, and response actions in state-owned buildings?

General funds finance these asbestos activities in state-owned buildings.

B. Please estimate the budget for asbestos-related activities in state-owned buildings.

	Capital Budget 1988	Capital Budget 1989	Operating Budget 1988	Operating Budget 1989
Office Buildings	$1,000,000		$0	

Where a space is blank, figures were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

No.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

WISCONSIN

The information that follows relates to state-owned buildings, including state office buildings, state colleges and universities, state-leased buildings, state hospitals, and state prisons. Where answers vary for specific types of state-owned buildings, such differentiations will be noted.

I. INSPECTIONS AND MANAGEMENT OF ASBESTOS IN STATE-OWNED BUILDINGS

A. Does your state require inspections of state-owned buildings for asbestos-containing material (ACM)?

The state does not require inspections in state-owned buildings, but individual agencies are inspecting buildings as a matter of departmental policy, not state policy.

B. What kinds of materials do the inspections cover?

The state could not respond; each agency differs.

C. Does the state mandate specific procedures or criteria for conducting building inspections and assessing asbestos hazards in state-owned buildings?

No.

D. Please estimate the completion rate (percentage) of asbestos inspections performed in state-owned buildings.

a. 100% office buildings

b. 30% state colleges and universities

c. 90% state hospitals

d. 50% state prisons

e. 100% state-leased buildings

E. Has the state quantified the amount of asbestos and its condition in state-owned buildings?

The state did not respond.

II. MANAGEMENT PLANS AND RESPONSE ACTIONS

A. Are formal management plans required for asbestos in state-owned buildings?

No.

B. What response actions occur once asbestos is found?

1. **Notification** - The state did not respond.

2. **Removals** occur during remodeling where the asbestos is in poor condition.

3. **Management** of asbestos is done when needed, as determined by individual departments. Departments also make individual decisions regarding response actions, periodic surveillance, reinspections, and operations and maintenance procedures.

III. ASBESTOS ABATEMENT PROJECTS IN STATE-OWNED BUILDINGS

A. Is the state conducting asbestos abatement projects of any kind in occupied buildings?

Projects are conducted and must comply with Wisconsin abatement procedures and follow state-of-the-art work practices.

B. Does the state notify employees, building occupants or others of asbestos abatement projects?

Yes.

C. Is air monitoring used as a means of assessment?

Air monitoring is required during the project, but not for initial assessment.

D. Is air monitoring used as a means of determining fitness for occupancy (e.g., clearance levels)?

Clearance levels of .01 f/cc using PCM must be met.

E. Is the state using state employees, private contractors, or both to conduct asbestos-related work?

Only private contractors are used for asbestos-related work.

IV. ACCREDITATION

A. What qualifications or training are required for the following individuals or entities conducting asbestos-related work in state-owned buildings?

	Training Length	Hands-On	Exam/ Score	Annual Retraining	Fee	Prequalifications
Abatement Supervisor	32 hrs	X	70%	X	$100	No
Asbestos Worker	24 hrs	X	70%	X	$50	No

V. FINANCING ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

What is the source of funds for inspections, assessment and response action in state-owned buildings?

General funds and departmental budgets fund asbestos activities in state-owned buildings. Budget estimates were not available.

VI. POLICIES PROPOSED OR UNDER DEVELOPMENT

Do you anticipate any changes in state programs or standards regarding asbestos in state-owned buildings?

The state did not respond.

VII. OTHER ASBESTOS ACTIVITIES IN STATE-OWNED BUILDINGS

Please describe any other asbestos-related activities in state-owned buildings.

The state did not respond.

APPENDICES

FEDERAL ASBESTOS LAWS AND REGULATIONS: A BASIS FOR STATE STANDARDS

I. INTRODUCTION

With the passage of Public Law 99-519, the Asbestos Hazard Emergency Response Act of 1986 (herein referred to as AHERA), Congress placed a heavy load on state governments and local school districts to inspect for and remedy asbestos-related problems in schools. Prior to AHERA, some states had programs relating to asbestos in schools, state-owned buildings, and some public and commercial buildings, while other states had no programs relating to asbestos in any buildings. As a result, some states are amending existing statutes to achieve compliance with AHERA, while others are introducing new legislation. Many states are adopting the provisions of federal asbestos laws and regulations as state standards with little or no modification. It is therefore necessary to comprehend federal regulations in order to understand state laws and regulations.

Currently, there are no federal laws or regulations requiring states to inspect for asbestos in state-owned buildings, but certain federal laws and regulations do require action once asbestos is discovered. Some states have adopted these federal standards as state standards and they apply in state-owned buildings.

The five major federal statutes and regulations that are being adopted by the states are: The Occupational Safety and Health Administration's Construction Standards (OSHA 29 CFR 1928.58); The OSHA General Industry Standards (OSHA 29 CFR 1910); The Environmental Protection Agency's Worker Protection Rule (EPA 40 CFR 763); The EPA's National Emission Standards for Hazardous Air Pollutants (EPA 40 CFR 61); and AHERA, with implementing regulations adopted by the EPA (EPA 40 CFR 763).

II. OSHA CONSTRUCTION AND GENERAL INDUSTRY STANDARDS

After a lengthy and exhaustive rulemaking procedure, on June 26, 1986, OSHA issued new standards to protect workers in the construction industry who handle asbestos (Construction Standards, 29 CFR 1926.58), and to regulate occupational exposure to asbestos (General Industry Standards, 29 CFR 1910). States may receive OSHA delegation and funding if they adopt a plan at least "as effective" as the federal standards (see Table 1 in Appendix B for a list of states with delegated state programs). These states also are not preempted from being more stringent.

Federal OSHA Construction Standards apply solely to **private sector** workers "in construction" (i.e., the demolition, removal or encapsulation, repair, maintenance, renovation, installation, transportation, and disposal of asbestos). However, those states listed in Table 1, Appendix B, that have adopted the federal OSHA standard have extended its protection to public employees and therefore cover state employees. In the 27 states that have not adopted the standards, the EPA Worker Protection Rule provides protection for public employees, with federal OSHA providing protection for private sector employees. Where the state is considered the employer, it has significant responsibilities governed by OSHA or EPA to protect its employees working with asbestos. An exemption from some of the worker protection standards exists for small-scale, short-duration activities (i.e., pipe repair, valve replacement, installation of electrical conduits, installation and removal of drywall, roofing and other general building maintenance or renovation). An employer wishing to use this exemption must comply with the summary worker protection standards of Appendix G (see discussion of OSHA appendices below).

OSHA's General Industry Standards differ in scope from the Construction Standards by providing protection from **occupational** exposure to asbestos. The standards apply solely to **private sector** building occupants or workers in occupations **other than "construction."** The two regulations are similar in content, but only the Construction Standards will be discussed since they apply to abatement actions.

The Worker Protection Standards establish a permissible asbestos exposure limit (PEL) of 0.2 fibers of asbestos per cubic centimeter (f/cc) of air sampled over an eight-hour, time-weighted average. If the initial monitoring establishes that exposure levels are below PEL, then further periodic monitoring is not required. If initial monitoring indicates levels above PEL, then the employer must establish a regulated area, conduct periodic monitoring, and follow methods of compliance and respiratory protection procedures; follow protective clothing requirements, set up hygiene facilities,

and follow proper hygiene practices; communicate the hazard to employees; follow housekeeping procedures; and conduct medical surveillance in some cases (discussion below). The standards also establish an action level of 0.1 f/cc over an eight-hour, time-weighted average. If the employer can demonstrate that exposure levels are below the action level, then no monitoring is required. If exposure levels are above the action level, then the employer must provide employee information and training and conduct medical surveillance in some cases. Regardless of the results of initial monitoring, the employer must follow warning label requirements and housekeeping procedures.

On September 14, 1988, OSHA amended the rule to provide an additional short-term exclusion limit. Workers exposed to asbestos at concentrations greater than 1 f/cc of air for longer than 30 minutes must be protected in a fashion similar to the protections triggered by the PEL discussed above. The new standard is expected to provide protection for maintenance workers who are required to conduct jobs involving periodic disturbance of asbestos.

Where exposure levels exceed PEL, the employer must communicate such information to the employees and establish a regulated area. The regulated area must be demarcated to limit exposure and access. In the regulated area, respirators must be provided and certain activities, including smoking, drinking, and eating, are expressly prohibited.

During abatement, demolition, and renovation, the employer must designate a competent person to set up and test negative-pressure enclosures, control entry and exit for the area, supervise monitoring, and ensure compliance with training and hygiene requirements. Initial and periodic monitoring must take place where asbestos levels are above PEL, and employees must be informed of the monitoring results.

The employer must use one or any combination of the following methods of compliance to maintain exposure levels below PEL: use of local exhaust systems equipped with high-efficiency particulate filters (HEPA); adequate ventilation; HEPA vacuums; enclosure and isolation; wetting methods; and prompt disposal. Use of certain equipment also is prohibited.

Other standards of worker protection that must be complied with include the use of respirators, protective clothing, and the proper use of hygiene facilities (i.e., clean room, lunch room, decontamination areas, shower room, and equipment room). Communication of asbestos hazards to employees must be achieved through use of warning signs, labels, and employee training, regarding the characteristics, health effects, and proper handling of asbestos. In addition, housekeeping procedures must be followed, including HEPA vacuuming and disposal of wastes in sealed, impermeable, labeled containers. All employees who are exposed to asbestos at or above the action level for more than 30 days are subject to an employer-required medical surveillance program.

The construction standards also require the employer to maintain records. Operations that are exempt from certain standards because exposure is below the action level must maintain records of the data upon which they rely to claim the exemption. Employers subject to the standards must maintain exposure monitoring and medical surveillance records for 30 years. Employee training records must be kept for one year following the date of termination of the employee who is the subject of such records.

The standards are supplemented by nine appendices, lettered A through I. The following appendices are mandatory: Appendix A prescribes procedures for analysis of air samples; Appendix C prescribes procedures for respirator use; Appendix D provides medical questionnaire forms; and Appendix E prescribes procedures for interpretation and classification of chest roentgenograms. Appendix G is nonmandatory, but becomes mandatory for operations that rely on the small-scale, short-duration exemption from the general standards. Appendix G sets forth worker protection standards for those using the exemption. The following appendices are nonmandatory and serve as guidelines: Appendix B provides step-by-step instruction for air sampling; Appendix F provides detailed work practices; Appendix H provides substance technology information; and Appendix I provides medical surveillance guidelines.

III. EPA WORKER PROTECTION RULE

The EPA, in order to fill the gap for public employees left by OSHA's standards, adopted the EPA Worker Protection Rule in July 1985; amended June 8, 1986. The rule applies to public workers not covered by OSHA standards,

including **local and state government employees**. The rule essentially is identical to OSHA's Construction Standards with two exceptions. First, the rule applies only to removal, enclosure, or encapsulation of asbestos. The OSHA standard, in contrast, applies to demolition, repair, maintenance, renovation, installation, transportation and disposal, in addition to the coverage of the EPA Rule. Second, the rule requires employers to notify the EPA at least 10 days prior to commencement of an asbestos project, unless the project involves less than 3 linear or 3 square feet of asbestos-containing material (ACM). The OSHA standards contain no notification requirements.

IV. EPA NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS; ASBESTOS

Section 112 of the Clean Air Act directed EPA to prepare a list of hazardous air pollutants and promulgate regulations to govern such pollutants. Subpart (m) names asbestos as a hazardous pollutant and prescribes procedures that must be followed when dealing with asbestos to prevent emissions to the outisde (ambient) air.

National Emission Standards for Hazardous Air Pollutants (NESHAP) apply to certain demolition, renovation, and removal projects. Owners/operators of NESHAP-size projects must comply with notification requirements, work procedures, and disposal procedures. The following projects are NESHAP size: first, a **demolition** of at least 260 linear feet on pipes or at least 160 square feet on other facility components; second, a **renovation** involving the stripping or removing of at least 260 linear feet on pipes or 160 square feet on other facility components.

For NESHAP-size **demolitions**, 10 days' notice must be given to the EPA prior to commencement. For **demolitions** less than NESHAP size, 20 days' notice must be given to the EPA prior to commencement. For emergency or state-ordered actions, notification must be given as early as possible. Also, for **renovation** operations, notification must be given as early as possible.

The notification must include: the name and address of the owner/operator; a description of the facility; an estimate of the amount of friable ACM involved; the location of the facility; scheduled starting and completion dates; the nature of the project; procedures followed; and waste disposal information.

Projects smaller than NESHAP size are not subject to the work practice standards of NESHAP, but **all demolition** projects are subject to the notification requirements. **Renovations** of less than NESHAP size are not subject to any of the NESHAP requirements. In addition, certain limited exemptions exist for emergency and state-ordered actions.

Procedures for the actual removal and/or handling of the asbestos also are set forth in the regulation. Friable asbestos must be removed during demolition unless it is encased in concrete and wetted. If it is taken out in sections, then it must be wetted and lowered to the ground without dropping. Wetting is not required during renovation if the administrator of the EPA finds that equipment would be damaged and the owner/operator will use local exhaust ventilation with no visible emissions. Friable ACM that is removed or stripped must be continuously wetted until disposal, lowered not dropped, and transported in an airtight chute if more than 50 feet above the ground. Summary procedures are provided for emergency removal and situations where the temperature is below freezing.

Procedures for asbestos disposal and the operation of waste sites also are governed by NESHAP. Asbestos waste must be deposited at a site operated in accordance with the EPA regulations, Section 61.156 NESHAP. The standard for the owner/operator creating the waste requires no discharge of visible emissions during disposal, or compliance with one of three alternative methods.

The first alternative method requires treatment of the waste material with water to create a slurry. No discharge of visible emissions is allowed during mixing, unless cleaning methods specified in Section 61.154 are used to clean emissions before they escape to the outside air. After wetting, the waste must be sealed in leak-tight containers and properly labeled.

The second alternative is to transform the friable asbestos into nonfriable form by molding it into pellets. Again, there can be no visible emissions unless specified cleaning methods are used. Finally, as a third alternative, disposal may occur by any other means approved by the EPA. The NESHAP regulations specify proper air cleaning methods.

Reporting requirements for owners/operators of disposal sites and operating standards for active waste disposal are prescribed.

Four options of compliance are available for the owner/operator of a disposal site in order to operate the site in a manner that complies with NESHAP. First, the waste must be covered each 24-hour period with at least six inches of nonasbestos-containing material. Second, there must be no visible emissions and the site must possess an adequate natural barrier (or warning signs and fences must be erected) to deter access by the public. Third, the waste must be coated with a resinous or petroleum-based product once during each 24-hour period and the site must contain a natural barrier (or warning signs and fences must be erected) to deter access by the public. Finally, the site may be operated in any manner approved by the administrator of the EPA.

Some states are adopting the federal NESHAP standards *in toto* as state standards, while other states are using federal NESHAP as a basis for their own asbestos standards. States that meet certain EPA requirements and adopt the NESHAP standards may be delegated enforcement authority by EPA under Section 105 of the Clean Air Act (see Table 1 in Appendix B).

V. AHERA AND IMPLEMENTING REGULATIONS

AHERA requires states and local educational authorities (LEAs) to take certain steps toward the goal of remedying asbestos hazards in schools. Although AHERA applies only to schools, states also are grappling with the problem of asbestos in state-owned and other buildings and they may adopt portions of AHERA as state standards for those buildings. AHERA also mandates that states establish accreditation programs for asbestos professionals; those programs must be at least as stringent as a model plan developed by EPA. EPA may grant interim approval for a state accreditation program that conforms with part of the model plan (e.g., applies only to contractors and workers, but not to other asbestos professionals as required by the model plan) until a complete program is established by the state.

Congress adopted AHERA under the belief that the EPA had not set adequate standards for managing asbestos hazards in schools. AHERA required the EPA to set standards for inspections, response actions, management plans, operations and maintenance plans, and transportation and disposal. LEAs must develop management plans and submit them to the governor of their state for disapproval if the plans are inadequate. Congress originally required all schools to submit management plans by October 12, 1988; however, Congress later amended AHERA to allow certain qualifying schools to be granted a deferral until May 12, 1989. All schools were required to begin implementation of management plans by July 9, 1989.

Congress provided enforcement mechanisms against LEAs for failure to inspect schools, for relaying false information, and for failure to develop management plans. Emergency action also may be taken by the EPA or the governor. Congress included a no-preemption provision (states are not preempted by AHERA from adopting more stringent requirements) and provided whistle-blower protection for persons reporting asbestos-related problems. States with their own programs for asbestos management in schools may be waived by EPA from the AHERA requirements if the state program essentially is equivalent to the federal standards.

AHERA requires the EPA to conduct two studies--the first to assess the status of insurance for abatement contractors and their financial capabilities; the second to determine the extent of ACM in public buildings other than schools. The study on public buildings was released in February 1988 and recommends that AHERA not be extended to public buildings for at least three years, if at all. The study calls for improving the accreditation system and further risk studies on asbestos. The insurance study has been released in interim form. AHERA also establishes an asbestos trust fund.

As mandated by AHERA, the EPA promulgated regulations to implement AHERA. The EPA selected the negotiated rulemaking process to develop a draft rule. Based on the draft rule, proposed regulations were published detailing response actions, abatement standards, monitoring technology, state waivers, record-keeping requirements, and enforcement mechanisms. Following public comment, the final rule was announced on October 20, 1987. The final model accreditation plan also has been promulgated.

VI. CONCLUSION

In response to the need to remedy asbestos-related hazards, the state legislatures and their administrative agencies are using federal legislation and regulations as a basis for state standards. Federal OSHA Construction and General Industry Standards, as well as the EPA's Worker Protection Rule, are being used by states to provide worker protection relating to asbestos. Federal NESHAP requirements provide work practice standards for asbestos-related renovation and demolition projects. AHERA and its implementing regulations provide a framework for state legislation governing asbestos in all buildings, not just schools. In the increasingly complex asbestos arena, federal legislation and regulations provide established standards for the states to follow.

Table 1.
States with Delegated Federal Programs

The following states have adopted the federal NESHAP and have received enforcement authority from the EPA:

Alabama
Arizona
Arkansas
California (partially delegated)
Colorado
Connecticut
Delaware
Florida
Georgia
Indiana
Illinois (partially delegated)
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan (partially delegated)
Minnesota
Mississippi
Missouri
Montana
Nebraska
New Hampshire
New Mexico
Nevada (partially delegated)
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
South Dakota
Tennessee
Texas
Utah
Virginia
Washington
West Virginia
Wisconsin
Wyoming

The following states are OSHA plan states:

Alaska
Arizona
California
Connecticut (public employees only state program)
Hawaii
Indiana
Iowa
Kentucky
Maryland
Michigan
Minnesota
Nevada
New Mexico
New York (public employees only state program)
North Carolina
Oregon
South Carolina
Tennessee
Utah
Vermont
Virginia
Washington
Wyoming

NOTE: The above states extend the federal requirements to public employees as well as private employees (except New York and Connecticut do not cover private employees).

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